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EXAMINER

SCUDERI, PHILIP S

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,849

Applicant(s)

ECKERT ET AL.

Examiner

Philip S. Scuderi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 14, 16-22 and 25-27 is/are rejected.
- 7) ☐ Claim(s) 7, 9 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to Applicant's amendment filed June 6, 2005. Claims 1, 13, 14-18, and 20-22 are amended. Claims 12, 15, and 23-24 are cancelled. Claims 25-27 are new claims.

Drawings

2. Examiner has withdrawn the objections to the drawings since Applicant's amendments have overcome the objections.

Specification

3. Examiner has withdrawn the objections to the specification since Applicant's amendments have overcome the objections.

Claim Objections

4. Examiner has withdrawn the objections to the claims since Applicant's amendments have overcome the objections. However, the following objections apply to the new claims and/or were overlooked by the Examiner.

5. Claims 7 and 9 are objected to because of the following informalities: "according to any claim 1". Examiner suggests "according to claim 1".

6. Claim 17 is objected to because of the following informalities: "wherein where the response comprises a message, the receiver module is operable to generate an output comprising the content

information". Examiner suggests "wherein ~~where~~ the response comprises a message, and the receiver module is operable to generate an output comprising the content information"

Claim Rejections - 35 USC § 112

7. Examiner has withdrawn the rejections under 35 USC § 112 to the claims since Applicant's amendments have overcome the rejections. However, the following rejections apply to the new/amended claims and/or were overlooked by the Examiner.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 14 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite the limitation "the client system". It is unclear which client system the claims are referring to.

10. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites the limitation "A client system according to claim 18". It is unclear which client system the claim is referring to. Examiner suggests "a communication system according to claim 18".

Response to Arguments

11. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 22, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer (US 6,023,722) in view of A Practitioners Approach to Data Federation, F Leymann, S Str - Workshop Foederierte Datenbanken, 1999 (hereinafter "Leymann").

14. With respect to claim 1, Colyer discloses a message broker (31) for transmitting a message (requests, see steps 301-302) from a first client system (the system associated with client browser 1a) to a second client system (32a), the message broker comprising at least one message channel (col. 6 lines 26-30, a queue), the message broker operable to:

receive a message (receive a request, see 301-302) from the first client system (the system associated with client browser 1a) encoded in an Internet protocol (the message is transmitted over Internet 2) and comprising content information (col. 6 lines 26-30, URLs);

receive a message request (col. 6 lines 30-35) from the second client system (32);

read the message request (messaging and queuing unit 32 must inherently read the requests in order to respond to them);

send a pull request to the message channel (see step 304 and col. 6 lines 36-39); and

generate a response accordingly (see step 304 and col. 6 lines 36-39).

15. The teachings of Colyer differ from the invention of claim 1 in that Colyer does not expressly disclose the following:

- (a) the first and second channel adapters;
- (b) that the received message from client browser (1a) comprises destination information;
- (c) reading destination information from the message, and sending a push request to place the message in the queue (i.e. message channel) corresponding to the destination information;
- (d) that the received message request from web server (32a) (i.e. the second client system) comprises source information; and
- (e) identifying the queue (i.e. message channel) corresponding to the source information.

16. In considering (a), the first and second channel adapters read on practically anything (e.g., the inherent network interface connected to messaging and queuing unit 31, see figure 1). Also, see Leyman figure 9 for express use of “adapters”. However, for purposed of this rejection, the first and second channel adapters correspond to the sections of the code that operate the messaging and queuing unit (e.g., the code that responds to requests etc.).

17. In considering (b) and (c), while Colyer does not expressly disclose that the message comprises destination information identifying a certain message queue. Colyer is silent with respect to the exact structure of the messages, and message queuing products that enable messages to comprise destination information identifying a message queues were well known in the art, as evidenced by Leyman.

18. In a similar art, Leyman discloses that message queuing products provide functionality for explicitly defining destinations (i.e. queues). See page 2 lines 15-17. Such functionality clearly implies

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that multiple queues exist, since if only one queue existed in such a system then there would be no reason to expressly define message destinations.

19. Given the teachings of Leyman, it would have been obvious to one of ordinary skill in the art to enable the messages to comprise destination information identifying the queue, to read the destination information from the message, and to place the message in a queue corresponding to the destination information. The motivation for doing so would have been so that messaging and queuing unit 31 could support multiple queues (which was known in the art and implied by Leyman), thereby enabling the messaging queuing software to be available for use with more than one application, and thus enabling the application vendor to charge more money for the application and collect more revenue.

20. In considering (d) and (e), the second client system is a web server (see figure 1), which implies that it communicates using HTTP, as was well known in the art.

21. Colyer does not expressly disclose that the received message requests from web server (32a) (i.e. the second client system) comprises source information that identifies the queue. However, since, as applied above, it would have been obvious for the messaging and queuing unit (31) to support multiple queues, it would have been necessary to provide source information for the pull requests to use to identify the queue that the web servers pull information from.

22. With respect to claim 22, Colyer-Leyman teaches the message broker applied to claim 1. Claim 22 is substantially the same as claim 1 except that it claims pushing the content information into the message channel. The requests are the content information. See Colyer col. 6 lines 26-32.

23. With respect to claim 25, Colyer-Leyman teaches the message broker applied to claim 1. The first client system (the system associated with web browser 1a) must necessarily comprise a transmission module (e.g., network layer code) operable to transmit the message from the first client system to the message broker in order to perform the functions discussed in the rejection of claim 1.

24. The transmission module must furthermore be operable to receive a message comprising the URL (i.e. content information) and the queue identifier (i.e. information corresponding to a message channel), generate the message comprising the message information encoded in an Internet protocol format (see figure 1, the message is transmitted via the Internet 2), and transmit the message to the message broker for retrieval by the second client system from the message channel (see the rejection of claim 1).

25. With respect to claim 26, Colyer-Leyman teaches the message broker applied to claim 1. The second client system (32a) must necessarily comprise a receiver module (e.g., network layer code) operable to retrieve the message comprising content information from the message broker sent by the first client system in order to perform the functions discussed in the rejection of claim 1.

26. The receiver module must furthermore be operable to receive the message request, generate the message request encoded in an Internet protocol format in accordance with the source information, transmit the message request to the messaging and queuing unit (i.e. the message broker), receive the response from the message broker in accordance with the message request, and generate the output in order to perform the functions of claim 1.

27. With respect to claim 27, Colyer-Leyman teaches the message broker applied to claims 25 and 26. The claim is rejected for the same reasons.

28. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann, and further in view of Eggleston (US 5,771,353, hereinafter "Eggleston").

30. With respect to claim 2, Colyer-Leyman teaches the message broker applied to claim 1. Colyer-Leyman does not expressly teach the second channel adapter generating a time out response if no message is placed in the queue (i.e. channel) within a predetermined time period. Nonetheless, it was well known in the art to generate a time out response if no data exchange occurs via a connection within a predetermined time period, as evidenced by Eggleston.

31. In a similar art, Eggleston teaches a client (201) that receives a time out response (341) from a server (220) if no data exchange occurs within a predetermined time period (col. 5 lines 17-23). Given the teachings of Eggleston, it would have been obvious to one of ordinary skill in the art to send web server (32a) a time out response if no message had been placed in the queue within a predetermined time period, thereby avoiding overburdening messaging and queuing unit (31) with a large number of unused connections.

32. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann.

33. With respect to claim 3, Colyer-Leymann teaches the message broker applied to claim 1 wherein, when a message is placed in the channel, the second channel adapter is operable to generate a response comprising at least the content information (see the rejection of claim 1).

34. With respect to claim 4, Colyer-Leymann teaches the message broker applied to claim 1. The web server (32a) (i.e. the second client system) and the messaging and queuing unit (31) (i.e. the message broker) communication using an Internet protocol (see the rejection of claim 1).

35. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann, and further in view of *JavaTM Servlet API* (hereinafter "Servlet API").

36. With respect to claim 5, Colyer-Leyman teaches the message broker applied to claim 1. Colyer does not teach that the code that operates the messaging and queuing unit interfaces with the Internet (2) using servlets. However, using servlets for this purpose would have been an obvious modification of Colyer's invention, since servlets were a well known means for providing a simple and consistent mechanism for handling messages and requests (Servlet API p. 1).

37. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann.

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38. With respect to claim 6, Colyer-Leymann teaches the message broker applied to claim 1. Colyer does not expressly disclose an address information store that stores information regarding web server (32a) (i.e. source information). Nonetheless, it was well known in the art to provide a message dictionary (i.e. an address information store) that stores information regarding formats that sources prefer to receive messages in, as evidenced by Leymann (p. 7 lines 3-13). Given the further teachings of Leymann, it would have been obvious to one of ordinary skill in the art to provide such a message dictionary (i.e. an address information store), thereby enabling message recipients to define the format that they prefer to receive messages in (Leymann p. 7 lines 3-13).

39. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann.

40. With respect to claim 7, Colyer-Leymann teaches the message broker applied to claim 1 further comprising a reply queue (i.e. a second message channel) (Colyer col. 6 lines 48-53) such that the messaging and queuing unit is operable to transmit messages from the first client system to the web server using one or the channels (see the rejection of claim 1) and from the web server to the first client system using the reply queue (Colyer col. 6 lines 48-53).

41. With respect to claim 8, Colyer-Leymann teaches the message broker applied to claim 8 wherein the channel adapters are provided by a common channel adapter module (whatever section of code processes messages to/from the messaging and queuing unit).

42. With respect to claim 9, Colyer-Leymann teaches the message broker applied to claim 1. The second client system is a web server (see figure 1), which implies that it communicates using HTTP, as was well known in the art.

43. With respect to claim 10, Colyer-Leymann teaches the message broker applied to claim 9. Using a HTTP POST request was one of the two well known means of encoding requests in HTTP. Examiner takes Official Notice that it was well known in the art to use HTTP POST so that request strings were not visible to users. It would have been obvious to use an HTTP POST request for this reason.

44. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann, and further in view of *Performance differences in post vs. get method* (hereinafter "Netscape").

45. With respect to claim 11, Colyer-Leymann teaches the message broker applied to claim 9. It would have been obvious to one of ordinary skill in the art to encode the request using HTTP GET, since HTTP GET was known to be theoretically faster than HTTP POST (Netscape p. 1).

46. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann.

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47. With respect to claim 13, Colyer-Leymann teaches the communication system applied to claim 25. Using a HTTP POST request was one of the two well known means of encoding requests in HTTP. Examiner takes Official Notice that it was well known in the art to use HTTP POST so that request strings were not visible to users. It would have been obvious to use an HTTP POST request for this reason.

48. With respect to claim 14, Colyer-Leymann teaches the communication system applied to claim 25. Colyer-Leyman does not expressly teach either client system comprises a firewall, wherein the message is permitted to pass through the firewall. Examiner takes Official Notice that providing a firewall in order to block potential online threats and that HTTP was a well known means of passing messages through a firewall. It would have been obvious to provide either of the client systems with a firewall that enables HTTP to pass through it in order to block potential online threats.

49. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann, and further in view of Eggleston.

50. With respect to claim 16, Colyer-Leyman teaches the message broker applied to claim 1. Colyer-Leyman does not expressly teach that the response comprises a time out response or that the receiver module is operable to generate an output comprising re-transmitting the message request to messaging and queuing unit (31) (i.e. the message broker). Nonetheless, it was well known in the art to generate a time out response if no data exchange occurs via a connection within a predetermined

time period and for the receiver of the time out response to respond by re-transmitting a connection request, as evidenced by Eggleston.

51. In a similar art, Eggleston teaches a client (201) that receives a time out response (341) from a server (220) if no data exchange occurs via a connection within a predetermined time period (col. 5 lines 17-23). Given the teachings of Eggleston, it would have been obvious to one of ordinary skill in the art to send web server (32a) a time out response if no message had been placed in the queue within a predetermined time period, thereby avoiding overburdening messaging and queuing unit (31) with a large number of unused connections. Eggleston further discloses that the client responds by re-transmitting a connection request (col. 5 lines 27-31). Given the further teachings of Eggleston, it would have been obvious to one of ordinary skill in the art to enable the web server (32a) to respond to the time out response by re-transmitting the message request, thereby enabling the web server to respond to client requests.

52. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann.

53. With respect to claim 17, Colyer-Leymann teaches the communication system applied to claim 26, wherein the response comprises a message (Colyer col. 6 lines 54-57, the HTTP reply). Colyer does not expressly teach that the receiver module (code on the web server) is operable to generate an output comprising the content information (the URL of web server 32a). Examiner takes Official Notice that it was well known in the art for web servers to serve pages with image tags that reference images in the same domain. It would have been obvious to one of ordinary skill in the

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art to provide such images in the response, thereby providing a nicer look and feel for the web page as opposed to a text only page.

54. With respect to claim 18, Colyer-Leymann teaches the communication system applied to claim 26. Colyer-Leyman does not expressly teach either client system comprises a firewall, wherein the message is permitted to pass through the firewall. Examiner takes Official Notice that providing a firewall in order to block potential online threats and that HTTP was a well known means of passing messages through a firewall. It would have been obvious to provide either of the client systems with a firewall that enables HTTP to pass through it in order to block potential online threats.

55. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann, and further in view of Netscape.

56. With respect to claim 11, Colyer-Leymann teaches the second client system applied to claim 18. It would have been obvious to one of ordinary skill in the art to encode the request using HTTP GET, since HTTP GET was known to be theoretically faster than HTTP POST (Netscape p. 1).

57. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colyer in view of Leymann.

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58. With respect to claims 20 and 21, Colyer-Leyman teaches the message broker according to claim 1, and at least one client system (the system associated with browser 1b) connected (see figure 1) to the messaging and queuing unit (31) via the Internet (2).

Conclusion

59. It is noted that Applicant uses the phrase “operable” throughout the claims. Operable is a synonym of “capable” and thus renders many of the claim limitations mere intended use of the claimed invention(s), which must result in a structural difference between the claimed invention(s) and the prior art in order to patentably distinguish the claimed invention(s) from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).


60. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571) 272-5865. The examiner can normally be reached on Monday-Friday 8am-5pm.

61. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Glenton B. Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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62. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PSS


ABDULLAH SALAD
Primary Examiner